AMENDEMENTS TO THE CLAIMS

Claims 1-4 (Withdrawn)

Claims 5-12 (Canceled)

Claims 13-16 (Withdrawn)

Claims 17-26 (Canceled)

Claims 27-29 (Withdrawn)

30. (New) A transgenic mouse embryo whose genome comprises a disruption in the endogenous mouse ubiquitin ligase E3 gene, wherein where the disruption is homozygous the transgenic mouse embryo lacks production of functional endogenous mouse delta opioid receptor, and exhibits increased incidence of lethality during embryonic development, relative to a wild-type mouse.
31. (New) The transgenic mouse of claim 30, wherein the increased incidence of lethality occurs at approximately embryonic day 8.5.
32. (New) The transgenic mouse of claim 30, wherein the increased incidence of lethality during embryonic development comprises arrested development after embryonic day 8.5.
33. (New) The transgenic mouse of claim 30, wherein the transgenic mouse embryo comprises small, abnormal or reabsorbing egg cylinders.
34. (New) The transgenic mouse of claim 33, wherein the egg cylinders fail to develop somites.
35. (New) The transgenic mouse of claim 33, wherein the egg cylinders are reabsorbed by embryonic day 8.5.
36. (New) The transgenic mouse of claim 35, wherein the abnormal egg cylinders at embryonic day 8.5 resemble egg cylinders of a normal embryo at embryonic day 7.5.
37. (New) A cell or tissue obtained from the transgenic mouse of claim 30.
38. (New) A transgenic mouse comprising a heterozygous disruption in the endogenous mouse ubiquitin ligase E3 gene, wherein the disruption in a homozygous state inhibits production of functional mouse ubiquitin ligase E3 resulting in a transgenic mouse embryo exhibiting increased incidence of lethality during embryonic development, relative to a wild-type mouse.
39. (New) A method of producing a transgenic mouse comprising a disruption in the endogenous mouse ubiquitin ligase E3 gene, the method comprising:

(a) introducing a ubiquitin ligase E3 targeting construct into a mouse embryonic stem cell;

(b) introducing the mouse embryonic stem cell into a blastocyst;

(c) implanting the blastocyst into a pseudopregnant mouse, wherein the pseudopregnant mouse gives birth to a chimeric mouse; and

(d) breeding the chimeric mouse to produce a transgenic mouse embryo comprising a disruption in a ubiquitin ligase E3 gene;

wherein where the disruption is homozygous, the transgenic mouse embryo lacks production of functional mouse ubiquitin ligase E3 protein and exhibits increased incidence of lethality during embryonic development, relative to a wild-type mouse.

40. (New) The transgenic mouse produced by the method of claim 39.